



# **TYPE-R SUBWOOFER APPLICATION GUIDE GUIDE D' APPLICATION**

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## **SWR-1521D**

15 Inch Subwoofer for Sealed or Vented Enclosure (2  $\Omega$ ) + (2  $\Omega$ )  
Haut-parleur de sous-graves de 15 pouces (38 cm)  
pour boîtier étanche (2  $\Omega$ ) + (2  $\Omega$ )

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## **SWR-1541D**

15 Inch Subwoofer for Sealed or Vented Enclosure (4  $\Omega$ ) + (4  $\Omega$ )  
Haut-parleur de sous-graves de 15 pouces (38 cm)  
pour boîtier étanche (4  $\Omega$ ) + (4  $\Omega$ )

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## **SWR-1221D**

12 Inch Subwoofer for Sealed or Vented Enclosure (2  $\Omega$ ) + (2  $\Omega$ )  
Haut-parleur de sous-graves de 12 pouces (30 cm)  
pour boîtier étanche (2  $\Omega$ ) + (2  $\Omega$ )

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## **SWR-1241D**

12 Inch Subwoofer for Sealed or Vented Enclosure (4  $\Omega$ ) + (4  $\Omega$ )  
Haut-parleur de sous-graves de 12 pouces (30 cm)  
pour boîtier étanche (4  $\Omega$ ) + (4  $\Omega$ )

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## **SWR-1021D**

10 Inch Subwoofer for Sealed or Vented Enclosure (2  $\Omega$ ) + (2  $\Omega$ )  
Haut-parleur de sous-graves de 10 pouces (25 cm)  
pour boîtier étanche (2  $\Omega$ ) + (2  $\Omega$ )

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## **SWR-1041D**

10 Inch Subwoofer for Sealed or Vented Enclosure (4  $\Omega$ ) + (4  $\Omega$ )  
Haut-parleur de sous-graves de 10 pouces (25 cm)  
pour boîtier étanche (4  $\Omega$ ) + (4  $\Omega$ )

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## ● SPECIFICATIONS

Model	SWR-1521D	SWR-1541D	SWR-1221D	SWR-1241D	SWR-1021D	SWR-1041D
Size	15"	15"	12"	12"	10"	10"
Impedance	2 $\Omega$ + 2 $\Omega$	4 $\Omega$ + 4 $\Omega$	2 $\Omega$ + 2 $\Omega$	4 $\Omega$ + 4 $\Omega$	2 $\Omega$ + 2 $\Omega$	4 $\Omega$ + 4 $\Omega$
Power Handling (RMS/Peak)	500W/1500W	500W/1500W	300W/1000W	300W/1000W	300W/1000W	300W/1000W
Frequency Response	Fs~1kHz	Fs~1kHz	Fs~1kHz	Fs~1kHz	Fs~1kHz	Fs~1kHz
Sensitivity*	89dB	89dB	87dB	87dB	85dB	85dB
D.C. Coil Resistance (Re)	1.8 $\Omega$ + 1.8 $\Omega$	4.0 $\Omega$ + 4.0 $\Omega$	1.8 $\Omega$ + 1.8 $\Omega$	3.6 $\Omega$ + 3.6 $\Omega$	1.8 $\Omega$ + 1.8 $\Omega$	3.6 $\Omega$ + 3.6 $\Omega$
Inductance (Le) 1kHz/20kHz	3.72mH/1.15mH	6.20mH/1.86mH	2.41mH/0.84mH	3.85mH/1.34mH	2.67mH/0.88mH	3.92mH/1.39mH
Free Air Resonance (Fs)	23Hz	24Hz	27Hz	28Hz	29Hz	30Hz
Equivalent Stiffness (Vas)	98L	98L	58L	58L	29L	29L
Qms/Qes/Qts	9.84/0.40/0.38	9.68/0.50/0.48	8.68/0.40/0.38	8.31/0.45/0.43	8.93/0.40/0.38	8.76/0.43/0.41
X max / X peak	16.5mm/33mm	14.5mm/29mm	13.35mm/26.7mm	13.87mm/27.74mm	13.35mm/26.7mm	13.87mm/27.74mm
Mechanical Excursion (P-P)	68mm	68mm	55mm	55mm	55mm	55mm
Gap/Coil Height (Hag/Hvc)	15mm/48mm	15mm/44mm	10mm/36.7mm	10mm/37.74mm	10mm/36.7mm	10mm/37.74mm
Cone Area (Sd)	754.77 cm <sup>2</sup>	754.77 cm <sup>2</sup>	467.59 cm <sup>2</sup>	467.59 cm <sup>2</sup>	320.47 cm <sup>2</sup>	320.47 cm <sup>2</sup>
Diaphragm Material	Kevlar Reinforced Pulp	Kevlar Reinforced Pulp	Kevlar Reinforced Pulp	Kevlar Reinforced Pulp	Kevlar Reinforced Pulp	Kevlar Reinforced Pulp
Spider Material	Nomex	Nomex	Nomex	Nomex	Nomex	Nomex
Magnet Weight	129.6oz	129.6oz	89.4oz	89.4oz	64oz	64oz
Voice Coil Diameter	65mm	65mm	50mm	50mm	50mm	50mm
Displacement (front mount)**	0.249 ft <sup>3</sup>	0.249 ft <sup>3</sup>	0.128 ft <sup>3</sup>	0.128 ft <sup>3</sup>	0.092 ft <sup>3</sup>	0.092 ft <sup>3</sup>
Displacement (rear mount)	0.322 ft <sup>3</sup>	0.322 ft <sup>3</sup>	0.163 ft <sup>3</sup>	0.163 ft <sup>3</sup>	0.115 ft <sup>3</sup>	0.115 ft <sup>3</sup>
Added Volume (reverse mount)**	0.162 ft <sup>3</sup>	0.162 ft <sup>3</sup>	0.073 ft <sup>3</sup>	0.073 ft <sup>3</sup>	0.047 ft <sup>3</sup>	0.047 ft <sup>3</sup>
Recommended Sealed Box Volume	1.3-2.5 ft <sup>3</sup>	1.3-2.5 ft <sup>3</sup>	0.7~1.0 ft <sup>3</sup>	0.7~1.0 ft <sup>3</sup>	0.5~0.8 ft <sup>3</sup>	0.5~0.8 ft <sup>3</sup>

\* This commonly misunderstood specification should not be used as a reference for subwoofer output capability.

\*\* Based upon 3/4" (~20mm) baffle thickness, with opening cut to gasket inner diameter

Notes: Thiel-Small parameters were measured and averaged after break-in.

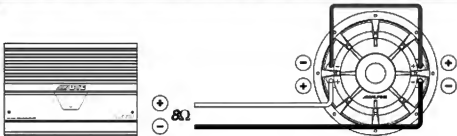
Various measurement techniques may produce different but equally valid results.

All specifications are subject to change without notice

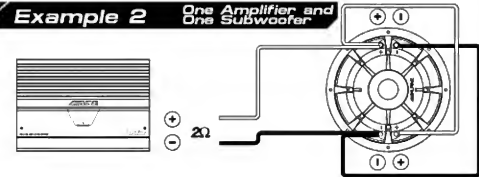
## ● SPECIFICATIONS

Model	SWR-1521D	SWR-1541D	SWR-1221D	SWR-1241D	SWR-1021D	SWR-1041D
Dimensions	15"	15"	12"	12"	10"	10"
Impedance	2 $\Omega$ + 2 $\Omega$	4 $\Omega$ + 4 $\Omega$	2 $\Omega$ + 2 $\Omega$	4 $\Omega$ + 4 $\Omega$	2 $\Omega$ + 2 $\Omega$	4 $\Omega$ + 4 $\Omega$
Puissance (RMS/Peak)	500W/1500W	500W/1500W	300W/1000W	300W/1000W	300W/1000W	300W/1000W
Réponse en fréquence	Fs~1kHz	Fs~1kHz	Fs~1kHz	Fs~1kHz	Fs~1kHz	Fs~1kHz
Sensibilité	89dB	89dB	87dB	87dB	85dB	85dB
Résistance en continu (Re)	1.8 $\Omega$ + 1.8 $\Omega$	4.0 $\Omega$ + 4.0 $\Omega$	1.8 $\Omega$ + 1.8 $\Omega$	3.6 $\Omega$ + 3.6 $\Omega$	1.8 $\Omega$ + 1.8 $\Omega$	3.6 $\Omega$ + 3.6 $\Omega$
Inductance (Le) 1kHz/20kHz	3.72mH/1.15mH	6.20mH/1.86mH	2.41mH/0.84mH	3.85mH/1.34mH	2.67mH/0.88mH	3.92mH/1.39mH
Fréquence de résonance (Fs)	23Hz	24Hz	27Hz	28Hz	29Hz	30Hz
Raideur equivalente (Vas)	98L	98L	58L	58L	29L	29L
Qms/Qes/Qts	9.84/0.40/0.38	9.68/0.50/0.48	8.68/0.40/0.38	8.31/0.45/0.43	8.93/0.40/0.38	8.76/0.43/0.41
X max / X crête	16.5mm/33mm	14.5mm/29mm	13.35mm/26.7mm	13.87mm/27.74mm	13.35mm/26.7mm	13.87mm/27.74mm
Excursion mécanique (P-P)	68mm	68mm	55mm	55mm	55mm	55mm
Largeur Entrefer/Bobine (Hag/Hvc)	15mm/48mm	15mm/44mm	10mm/36.7mm	10mm/37.74mm	10mm/36.7mm	10mm/37.74mm
Surface de cône (Sd)	754.77 cm <sup>2</sup>	754.77 cm <sup>2</sup>	467.59 cm <sup>2</sup>	467.59 cm <sup>2</sup>	320.47 cm <sup>2</sup>	320.47 cm <sup>2</sup>
Membrane	Kevlar renforcé	Kevlar renforcé	Kevlar renforcé	Kevlar renforcé	Kevlar renforcé	Kevlar renforcé
Suspension	Nomex	Nomex	Nomex	Nomex	Nomex	Nomex
Poids de l'aimant	129.6oz	129.6oz	89.4oz	89.4oz	64oz	64oz
Diamètre de bobine	65mm	65mm	50mm	50mm	50mm	50mm
Displacement (en avant)	0.249 ft <sup>3</sup>	0.249 ft <sup>3</sup>	0.128 ft <sup>3</sup>	0.128 ft <sup>3</sup>	0.092 ft <sup>3</sup>	0.092 ft <sup>3</sup>
Displacement (en arrière)	0.322 ft <sup>3</sup>	0.322 ft <sup>3</sup>	0.163 ft <sup>3</sup>	0.163 ft <sup>3</sup>	0.115 ft <sup>3</sup>	0.115 ft <sup>3</sup>
Volume en plus (en renverse)	0.162 ft <sup>3</sup>	0.162 ft <sup>3</sup>	0.073 ft <sup>3</sup>	0.073 ft <sup>3</sup>	0.047 ft <sup>3</sup>	0.047 ft <sup>3</sup>
Volume de charge recommandé	1.3-2.5 ft <sup>3</sup>	1.3-2.5 ft <sup>3</sup>	0.7~1.0 ft <sup>3</sup>	0.7~1.0 ft <sup>3</sup>	0.5~0.8 ft <sup>3</sup>	0.5~0.8 ft <sup>3</sup>

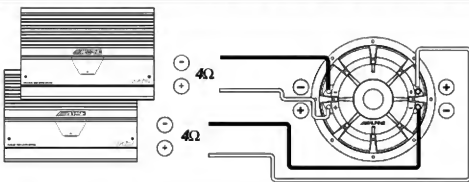
**Example 1** One Amplifier and One Subwoofer



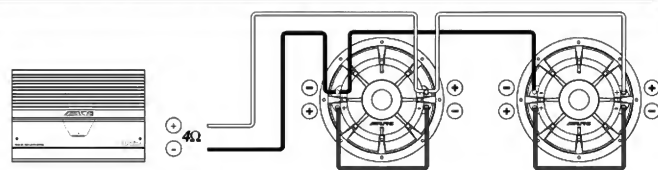
**Example 2** One Amplifier and One Subwoofer



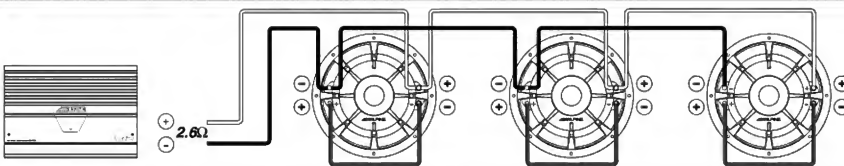
**Example 3** Two Amplifiers and One Subwoofer



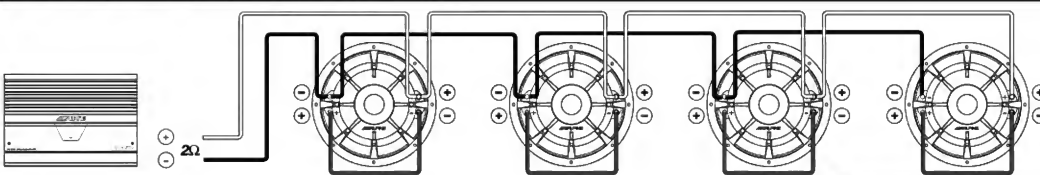
**Example 4** One Amplifier and Two Subwoofers



**Example 5** One Amplifier and Three Subwoofers



**Example 6** One Amplifier and Four Subwoofers

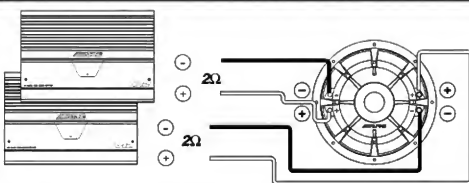


TYPE-R WIRING WORKSHEET

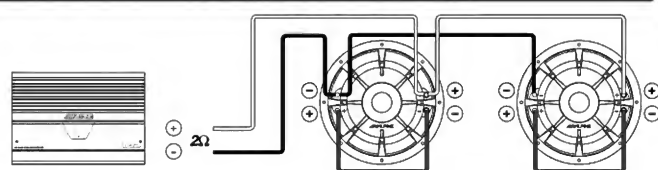
**Example 1** One Amplifier and One Subwoofer



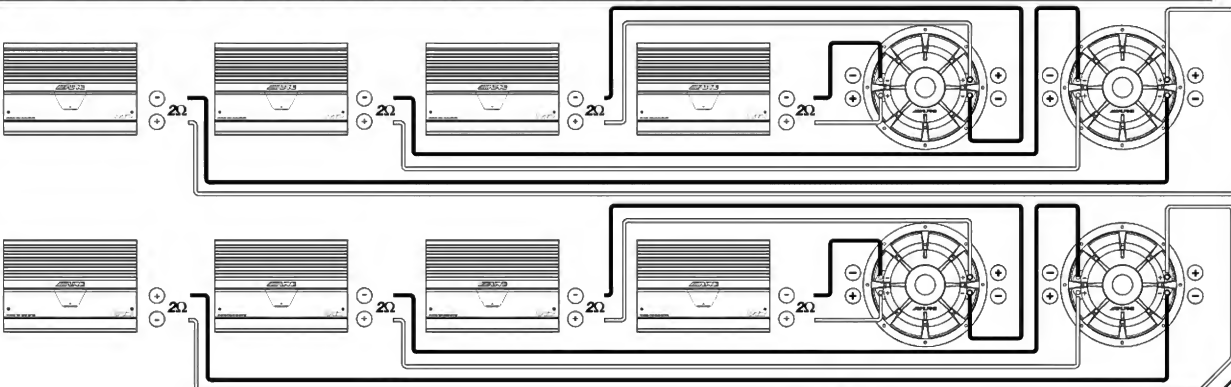
**Example 2** Two Amplifiers and One Subwoofer



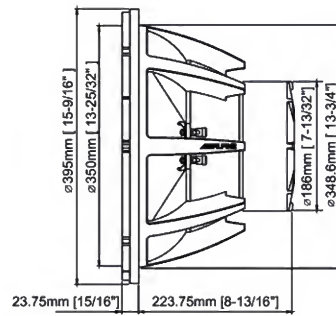
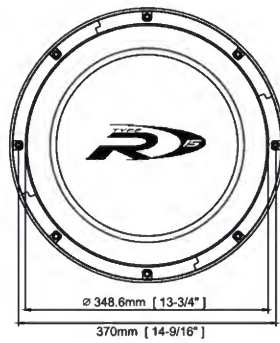
**Example 3** One Amplifier and Two Subwoofers



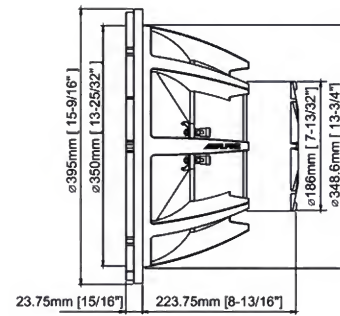
**Example 4** Eight Amplifiers and Four Subwoofers-Competition Diagram



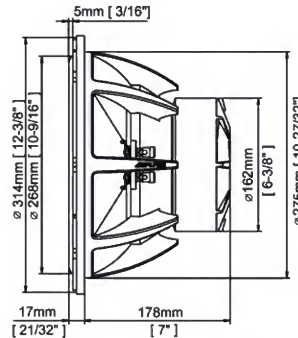
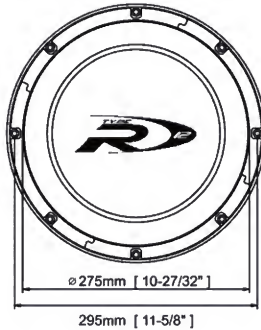
TYPE-R WIRING WORKSHEET



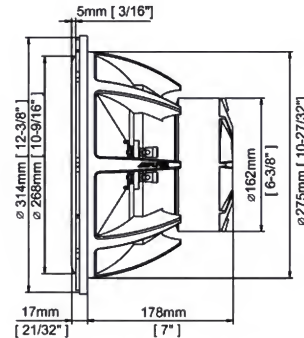
SWR-1521D



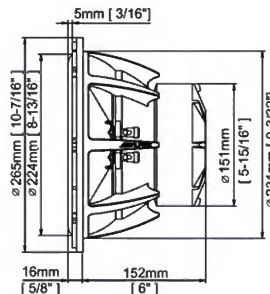
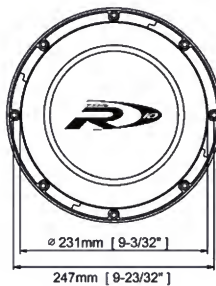
SWR-1541D



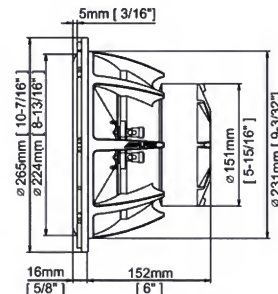
SWR-1221D



SWR-1241D



SWR-1021D



SWR-1041D



ALPINE ELECTRONICS, INC.  
Tokyo office : 1-1-8 Nishi Gotanda,  
Shinagawa-ku, Tokyo 141, Japan  
Tel.: (03) 3494-1101

ALPINE ELECTRONICS OF AMERICA, INC.  
19145 Gramercy Place, Torrance,  
California 90501, U.S.A.  
Tel.: (310) 326-8000

ALPINE ELECTRONICS OF CANADA, INC.  
Suite 203, 7300 Warden Ave. Markham,  
Ontario L3R 9Z6, Canada  
Tel.: (905) 475-7280

ALPINE ELECTRONICS OF AUSTRALIA PTY. LTD.  
6-8 Fiveways Boulevard Keysborough,  
Victoria 3173, Australia  
Tel.: 61 (3) 9769-0000

ALPINE ELECTRONICS DE ESPAÑA, S.A.  
Portal de Gamarra 36, Pabellón 32, 01013  
Vitoria (Alava). Aptdo: 133, Spain  
Tel.: 34 (945) 283588

ALPINE ELECTRONICS GmbH  
Kreuzerkamp 7-11 40878, Ratingen, Germany  
Tel.: 49 (2102) 4550

ALPINE ELECTRONICS MANUFACTURING OF EUROPE  
H-2051 Biatorbagy, orfzag ut. 2, Hungary  
Tel.: 36 (23) 311-923

ALPINE ELECTRONICS OF U.K., LTD.  
13 Tanners Drive, Blakelands, Milton Keynes,  
MK14 5BU, U.K.  
Tel.: 44 (1908) 611556

ALPINE ELECTRONICS FRANCE S.A.R.L.  
98, Rue de la Bella Etoile, Z.I. Paris Nord II  
B.P. 50016, 95945, Roissy, C.D.G. Cédex,  
France  
Tel.: 33 (1) 4863-8989

ALPINE ITALIA S.p.A.  
Viale C. Colombo 8, 20090 Trezzano Sul  
Naviglio, Italy  
Tel.: 39 (02) 484781

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